

4.5 PSP Cover Sheet

Proposal Title: Upper Butte Creek Road Management Improvement Project
Applicant Name: CSU, Chico Research Foundation on behalf of the Butte Creek Watershed
Conservancy
Mailing Address: Kendall Hall, Room 114, Chico, California 95929-0870
Telephone: 530-898-5026
Fax: 530-898-6804
Email: dholtgrieve@csuchico.edu kcooper-carter@csuchico.edu

Amount of funding requested: \$ \$209,476 for 3 years

Indicate the Topic for which you are applying (check only one box).

- | | | | |
|-------------------------------------|-----------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | Fish Passage/Fish Screens | <input type="checkbox"/> | Introduced Species |
| <input type="checkbox"/> | Habitat Restoration | <input type="checkbox"/> | Fish Management/Hatchery |
| <input checked="" type="checkbox"/> | Local Watershed Stewardship | <input type="checkbox"/> | Environmental Education |
| <input type="checkbox"/> | Water Quality | | |

Does the proposal address a specified Focused Action? X yes no

What county or counties is the project location in? Butte County

Indicate the geographic area of your proposal (check only one box):

- ☐ Sacramento River Mainstem
☒ Sacramento Trib: Butte Creek
☐ San Joaquin River Mainstem
☐ San Joaquin Trib: _____
☐ Delta: _____
- ☐ East Side Trib: _____
☐ Suisun Marsh and Bay
☐ North Bay/South Bay: _____
☐ Landscape (entire Bay-Delta watershed)
☐ Other: _____

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon. | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run Chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input checked="" type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> All chinook species |
| <input type="checkbox"/> Migratory birds | <input type="checkbox"/> All anadromous salmonids |
| <input type="checkbox"/> Other: _____ | |

Specify the ERP strategic objective and target (s) and the project addresses: Include page numbers from January 1999 version of ERP Volume I and II:

Volume II: ERPP-Butte Basin Ecological Management Zone Vision Programmatic Action 7A
Stage 1 Action: "...develop and implement elements of a watershed management plan to
enhance base flows, and reduce the transport of fine sediments into the creek channel, and..."

(p.267). Volume II: ERPP-states that "[r]estoring habitat in Butte Creek would allow the spring-run and fall-run chinook population to achieve increased annual spawning populations" (p.261). The "degradation of spawning and rearing habitat because of excessive loads of fine sediments..." is identified as being one of the "factors most influencing the ecological health of tributaries in the Sacramento River Basin." (SPER, p. 63). The CALFED Butte Basin Ecological Zone Vision recognizes that "The Butte Creek Watershed Conservancy is an important organization in developing, evaluating, and implementing measures to improve the ecological health of Butte Creek...[t]he conservancy will be instrumental in developing a comprehensive watershed management plan." (Vol. II ERPP, p. 258). The Strategic Plan suggests "developing a watershed management plan to manage road construction, timber harvest, and cattle grazing [which] can help prevent the introduction of too many fine sediments to the creek channel." (SPER, p. 79).

Indicate the type of applicant (check only one box):

- | | |
|--|---|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal Agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit |
| <input type="checkbox"/> Local government/district | <input type="checkbox"/> Private party |
| <input checked="" type="checkbox"/> University | <input type="checkbox"/> Other: _____ |

Indicate the type of project (check only one box):

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Planning | <input checked="" type="checkbox"/> Implementation |
| <input type="checkbox"/> Monitoring | <input type="checkbox"/> Education |

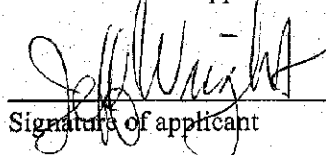
By signing below, the applicant declares the following:

- 1.) The truthfulness of all representations in their proposal;
- 2.) The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- 3.) The person submitting the application has read and understood the conflict of interest and confidentiality discussion on the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

The CSU, Chico Research Foundation

Jeff Wright

Printed name of applicant



Signature of applicant

Upper Butte Creek Road Management Improvement Project

Primary Contact(s) Information

California State University, Chico Research Foundation

Project Director: Dr. Donald Holtgrieve,

Department of Geography and Planning

California State University, Chico CA 95929-0425

530-898-5780

FAX: 530-898-6781

dholtgrieve@csuchico.edu

Butte Creek Watershed Conservancy

Watershed Coordinator: Brendan Vieg

P.O. Box 1611, Chico, California 95927

530-893-5399

FAX: 530-893-5399

vieg@ecst.csuchico.edu

Project Collaborators:

California Department of Forestry and Fire Protection /Butte County Fire Department

Assistant Chief: Bill Holmes

Station 44, Fair Street

Chico, California 95927

530-895-6620

County of Butte, Department of Public Works

Director: Mike Crump

County Building, 196 Memorial Way

Chico, California 95926

(530) 538-7683

FAX: (530) 538-7681

Department of Interior, Bureau of Land Management

Area Manager: Charles Schultz

Redding Area BLM

(530) 224-2100

Energy Growth Partnership II

Forks of Butte Hydroelectric Project

Manager: Richard Gordon

(530) 872-7163

Type of Organization and Tax Status

Research Foundation, CSU, Chico

Auxiliary organization of CSU, Chico as provided for in the Calif. Education Code, Title 5.

Tax Status: Non-profit educational corporation 501(c)3

Tax Identification Number

Research Foundation, CSU, Chico:

68-0386518

Executive Summary

Upper Butte Creek Road Management Improvement Project

Research Foundation, California State University, Chico & Butte Creek Watershed Conservancy

Project Location, Description, and Primary Biological/Ecological Objectives

The location of the project is in the Butte Creek watershed, Butte County (see attached watershed map.) The specific location is a 4 mile stretch of Doe Mill Road within the gorge of Butte Creek, approximately 3 miles northeast of the community of Forest Ranch in the central canyon reach of Butte Creek (see attached Doe Mill Road map).

Doe Mill Road is a segment of road that drops to cross the 800 foot deep canyon of Butte Creek (see attached Doe Mill Road map.) It is the only road to cross Butte Creek between Helltown Road and Butte Meadows – a distance of about seventeen miles – and in addition to providing an essential route of egress from a catastrophic wildfire in the Upper Paradise Ridge communities, it provides the only access to a BLM recreation area, a hydroelectric project diversion dam, and several homesites. The project area lies approximately 4 miles upstream from the Centerville Head Dam – the upper barrier to the migration of spring-run chinook salmon, fall-run chinook salmon and steelhead trout (all CALFED 1st Tier Priority Species). Doe Mill Road was originally maintained by the US Forest Service, but as its landholdings in the area have diminished since the 1950s, the canyon stretches of Doe Mill Road are now maintained by the California Department of Forestry and Fire Protection (CDF). Due to budgetary constraints, CDF is able to perform only minimal maintenance to keep the road open for firefighting access.

Preliminary field assessments of the road carried out by CSU, Chico Research Foundation staff in the training-phase of the CALFED-funded *Butte Creek Road Survey* have revealed plugged culverts and a road configuration which concentrates intercepted storm runoff onto areas of the hillslope which were *never naturally subjected to such large volumes of runoff*. During any major storm event, the disrupted hydrology associated with this stretch of road is responsible for the chronic delivery of fine sediments into Butte Creek. Spawning and holding habitat for spring-run chinook salmon, fall-run chinook salmon and steelhead trout located 4 miles downstream is adversely affected by sediment delivered from the road.

The project will assess current and projected uses of the road and develop a stakeholder-driven long-term road management plan. This plan will clarify long-term road-maintenance responsibilities, and include specific engineering prescriptions that: 1) minimize the delivery of fine sediments from the road and its adjacent hillslopes to the creek; 2) make the road drainage system capable of withstanding a 100 year flood event intact; 3) reduce the amount of maintenance required; 4) establish a long-term monitoring/maintenance strategy.

The proposal will be carried out in 3 phases: 1) Public outreach and the development of a road maintenance memorandum of understanding (MOU) which determines the needs and strengths of stakeholders including local residents, CDF, BLM, Forks of Butte Hydroelectric project staff, and the County of Butte; 2) landscape and site assessments, data analysis and development of a peer-reviewed comprehensive site-restoration strategy; 3) engineering and design of drainage improvements, budgeting of project implementation, development of environmental compliance and permitting documents, and ongoing monitoring.

Compatibility with CALFED Objectives

Butte Creek is one of the most significant tributaries of the Sacramento River that provides important habitat to many aquatic and terrestrial species including CALFED 1st Tier Priority Species spring-run chinook salmon, fall-run chinook salmon and steelhead trout. It is the largest of the four remaining tributaries that support spring-run salmon, which were recently listed as threatened under the California Endangered Species Act. *Volume II: ERPP-Butte Basin Ecological Management Zone Vision* states that "[r]estoring habitat in Butte Creek would allow the spring-run and fall-run chinook population to achieve increased annual spawning populations" (p. 261).

The "degradation of spawning and rearing habitat because of excessive loads of fine sediments..." is identified as being one of the "factors most influencing the ecological health of tributaries in the Sacramento River Basin". (SPER, Chap. 6: *Stage 1 Action Plan-Sacramento River Basin, Revised Draft: February 1999*, p. 63). FY '98 CALFED funds have been provided for development of a watershed management strategy and for studies of forest road-related sediment in Butte Creek's upper watershed. This proposal would address forest road issues in an area of the watershed that is not presently included in the funded study. This project will be carried out by staff that have used CALFED funding to develop a methodology for the appraisal of road-related sediment sources, and who have been involved in the collaborative process which has produced the CALFED funded *Butte Creek Existing Conditions Report* since its inception in 1997.

This process has built momentous local support for the expansion of CALFED restoration projects. The CALFED *Butte Basin Ecological Zone Vision* recognizes that "The Butte Creek Watershed Conservancy is an important organization in developing, evaluating, and implementing measures to improve the ecological health of Butte Creek...[t]he conservancy will be instrumental in developing a comprehensive watershed management plan". (Vol. II ERPP, February 1999, p. 258). The *Strategic Plan* suggests "developing a watershed management plan to manage road construction, timber harvest, and cattle grazing [which] can help prevent the introduction of too many fine sediments to the creek channel." (SPER, Chapt. 6: February 1999, p. 79).

Budget Costs and Third Party Impacts

The applicant requests \$209,476 over the course of 3 years upon contract signature. No negative third party impacts would be realized from this project.

Applicant Qualifications

Extensive qualifications for the CSU, Chico Research Foundation and The Butte Creek Watershed Conservancy can be found in the *Project Description* section.

Monitoring and Data Evaluation

Please refer to the *Monitoring and Data Evaluation* heading of the *Project Description* section.

Local Support/Coordination with other Programs

This project assists the County of Butte by closing a gap in maintenance between two stretches of road which they maintain, and improves access for local residents. This project will complement and build upon several other collaborative planning and implementation projects that are ongoing within the watershed. See the *Project Description/Linkages* section of this proposal for a description of related Butte Creek projects.

Project Description

Upper Butte Creek Road Management Improvement Project

Proposed Scope of Work

The proposed project will take place between October 1999 and October 2002. It will initiate the development and implementation of a road management plan designed to balance the access needs of a diverse group of stakeholders with the need to protect and enhance prime migratory, holding, and spawning habitat for threatened spring-run chinook salmon, fall-run chinook salmon, and the federally listed steelhead trout.

The proposal will be carried out in 4 phases: 1) public outreach and the development of a road maintenance memorandum of understanding (MOU) which determines the needs and responsibilities of stakeholders including local residents, CDF, BLM, and the County of Butte; 2) landscape and site assessments, data analysis and development of a peer-reviewed comprehensive site-restoration strategy; 3) engineering, design, budgeting of project implementation, and the development of environmental compliance and permitting documents. Monitoring will begin with a survey of baseline conditions, will be ongoing through all phases of the project, and will be designed to complement the monitoring which will take place once the planned construction has been funded.

Note: While all of these phases are interrelated, they may be treated autonomously, and funded separately.

Phase I – Public outreach, development of a road maintenance MOU, establish baseline conditions.

Scheduled Timeframe: October 1999 – March 2000

Task 1 – Work with faculty in CSU, Chico College of Physical Sciences to develop monitoring plan.

Deliverable: Monitoring plan,

Task 2 – Gather existing information and build GIS base maps. The base maps of the project area will facilitate communication between stakeholders and project staff during Task 3, and be integral in the hydrologic modeling and sediment transport analysis during Phase II. Begin collecting baseline monitoring data.

Deliverable: Preliminary site maps, baseline sediment transport information.

Task 3 – Conduct a series of public meetings between representatives of the Butte Creek Watershed Conservancy, Doe Mill Property Owners Association, CDF, BLM, the County of Butte, Forks of Butte Hydroelectric Project, and CSU, Chico Research Foundation road survey staff to clarify stakeholder needs and responsibilities, and to identify recurring problem areas and potential solutions. These meetings will also serve as a forum for the discussion of road-related sediment and monitoring issues in the area.

Deliverable: Meeting minutes and an analysis of the decision-making process, a Memorandum of Understanding between the involved parties. Compilation of local comments on road history.

Phase II – Landscape and site assessments, data analysis and development of a restoration plan.

Scheduled Timeframe: March 2000 – March 2001

Task 1 – The site-assessment will involve the systematic survey of all road segments and stream

crossings in the study area. Erosion features larger than a pre-determined minimum threshold will be inventoried and mapped. The function of stream crossings and culverts will be assessed *during* storm events, with recurring problem areas identified in Phase I, Task 3 receiving additional scrutiny. Additional landscape characteristics such as soils type, slope, geology, and landscape position will be compiled to assist in the ranking of sites for potential road-related erosion. This data will be entered into a relational database to allow for GIS analysis and to establish further baseline information for ongoing monitoring.
Deliverable: Annotated GIS database of site attributes, stream crossings, and landscape features.

Task 2 – Continuing monitoring of sediment movement through drainage system. Assessment of sediment transport corridors below road area. Cross-sectional volume measurements taken in the depositional areas of the larger gullies receiving culvert outwash will be an additional baseline element in long-term sediment movement monitoring.

Deliverable: Additional sediment catch-box data, GIS database and maps of sediment survey locations.

Task 3 – Data analysis will use the GIS database and field observations to analyze the relationships between site characteristics, man-caused changes in hydrology, and the delivery of sediment. Areas identified as having high erosion potential will be surveyed for culvert upgrades, and hydrologic modeling will be conducted to size new culverts to withstand 100 year flows. Survey data will be converted to report form for use in monitoring projects.

Deliverable: Preliminary report and maps showing results of landscape analysis. Summary of baseline environmental conditions.

Task 4 – Representatives from stakeholder groups, project staff and engineering consultants review landscape analysis documents and develop a long-term maintenance/monitoring plan.

Deliverable: Peer-reviewed final report on results of landscape analysis and draft road management plan.

Phase III – Engineering and design of project implementation phase.

Scheduled Timeframe: December 2000 – August 2002

Task 1 – Engineering consultants meet in field with project staff and agency representatives to refine project objectives and determine the location of new drainage structures. Location of new structure sites mapped for later use in environmental review process.

Deliverable: Maps of proposed drainage structures.

Task 2 – Engineering consultants develop site drawings and cost-estimates for implementation of proposed upgrades.

Deliverable: Construction drawings, cost estimates for implementation.

Task 3 – Prepare environmental review and environmental permitting documentation as required by funding and regulatory agencies.

Deliverable: Environmental documentation.

Task 4 – Ongoing monitoring.

Deliverable: Monitoring reports

Project Management Phase – Managerial Oversight of Project.

Scheduled Timeframe: Length of Project

Task 1 – Throughout the life of the project there will be substantial administrative duties including, but not limited to, quarterly reporting, attendance at annual CALFED meetings, funding-source research, and general project management and coordination with the multiple collaborating entities.

Deliverable: Quarterly Reports, Final Report, and successful completion of project.

Location and/or Geographic Boundaries of the Project

The location of the project is in the Butte Creek watershed, Butte County (see attached Watershed Map). The specific location is a 5 mile stretch of Doe Mill Road within the gorge of Butte Creek, approximately 3.5 miles northeast of the town of Forest Ranch in the central canyon reach of Butte Creek. All work will take place within the Butte Creek watershed in Township 24 N. Range 3E. (Mt. Diablo Meridian) in Sections 27, 33, 34, and 35 (see attached Butte Creek Watershed and USGS topographic maps).

Ecological/Biological Benefits

Ecological/Biological Objectives

Butte Creek is an important resource that supports several priority species and habitats. Within the Central Valley, spring-run chinook salmon, fall-run chinook salmon, and steelhead trout and their associated aquatic habitats have been in decline for many years. Butte Creek contains over 20 miles of critical spawning and holding habitat for all three of these species, which have been recommended for listing under the California and Federal Endangered Species Acts, respectively. The key to sustaining and restoring healthy populations of these fish is to protect and restore the habitats upon which they depend.

This project aims to improve and protect the holding and spawning habitat for the aforementioned species by making road-drainage improvements which will reduce the amount of sediment delivered to the creek by some of the steepest and most poorly maintained segments of road within the upper watershed of Butte Creek. The project site is located in the Upper Butte Creek watershed, 4 miles upstream from the Centerville Head Dam - the upper barrier to the migration of spring-run chinook salmon, fall-run chinook salmon and steelhead trout (All CALFED 1st Tier Priority Species).

The primary benefits of this project will be the removal of several chronic sediment sources which act to reduce the availability of spawning habitat downstream, and which can act as a stressor on fish during their incubation, and early rearing periods. Additionally, the need for watershed management plans addressing timber harvest, road construction, and grazing is recognized in CALFED's *Strategic Plan for Ecosystem Restoration* (p. 79). Public involvement in this project will provide a forum for local stakeholders to provide input on what types of past road management practices have succeeded or failed in their areas.

Preliminary field assessments of this road carried out by CSU, Chico Research Foundation staff in the training-phase of the CALFED-funded *Butte Creek Road Survey* have revealed plugged culverts and a road configuration which concentrates intercepted storm runoff onto areas of the hillslope which were *never naturally subjected to such large volumes of runoff*. During any major storm event, the disrupted hydrology associated with this stretch of road is responsible for the *chronic delivery of fine sediments* into Butte Creek. Spawning and holding habitat for spring-run chinook salmon, fall-run chinook salmon and steelhead trout located 4 miles downstream is adversely affected by sediment delivered from the road. (See Doe Mill Road map)

Clarification of maintenance responsibilities may be the most contentious issue addressed in the development of this plan. Currently, a bulk of the maintenance conducted on this road is performed by local residents in response to plugged culverts during storms. Long-term funding for road maintenance may be sought through CDF&G landowner grants or similar funding sources. It is hypothesized that upgrading the drainage structures on this stretch of road will reduce the amount of annual maintenance necessary. After implementation of the structural modifications, monitoring on this proposal and the monitoring required by the funder of the construction phase of the project will occur concurrently with scheduled maintenance, and the data collected will be used to develop a long-term maintenance schedule.

Alternatives to this project include compiling information on the amount of sediment delivered by all of the roads within the upper Butte Creek watershed, then ranking the results and addressing the most serious sites first. One benefit of pursuing this project is that Doe Mill Road is the only road to cross the gorge that is not *regularly* maintained by an agency or resource interest.

Linkages

Butte Creek is one of the most significant tributaries of the Sacramento River that provides important habitat to many aquatic and terrestrial species including the spring-run chinook salmon, fall-run chinook salmon and steelhead trout (All CALFED 1st Tier Priority Species). It is the largest of the four remaining tributaries that support spring-run salmon, which were recently listed as threatened under the California Endangered Species Act. The *"degradation of spawning and rearing habitat because of excessive loads of fine sediments..."* is identified as being one of the *"factors most influencing the ecological health of tributaries in the Sacramento River Basin"* (SPER, p. 63). The *Butte Basin Ecological Management Zone Vision* states that *"[r]estoring habitat in Butte Creek would allow the spring-run and fall-run chinook population to achieve increased annual spawning populations"* (Vol. II ERPP, p. 261). In addition to addressing CALFED recovery goals for spring-run chinook salmon which call for restoring and protecting "natal, rearing, and migratory streams within the Sacramento River Basin" (Vol. I ERPP, p. 217), this proposal addresses CALFED goals of restoring upper watershed processes that protect, restore, and maintain ecological functions and processes that create habitats for species that depend on the Delta, and reduce or eliminate stressors that impair their survival.

Funding for the development of the Butte Creek Watershed Management Strategy from five different groups (CALFED, USFWS, NFWF, and Met Water) has provided the synergy and established the partnerships to bring this collaborative restoration proposal back to CALFED for funding. FY '98 CALFED funds have been provided for studies of forest road-related sediment in Butte Creek's upper watershed, and this project will address forest road issues in an area of the watershed that is not presently included in the funded study. This proposal will be carried out by staff that have used CALFED funding to develop a methodology for the appraisal of road-related sediment sources, and who have been involved in the collaborative process which has produced the CALFED funded *Butte Creek Existing Conditions Report* since its inception in 1997. The diverse ownership along Doe Mill Road makes it an appropriate place for a project which can serve as a model in the development of stakeholder-driven road management plans for the entire upper watershed.

The CALFED *Butte Basin Ecological Zone Vision* recognizes that *"The Butte Creek Watershed Conservancy is an important organization in developing, evaluating, and implementing measures to improve the ecological health of Butte Creek...[t]he conservancy will be instrumental in developing a*

comprehensive watershed management plan". (Vol. II ERPP, p. 258). The *Strategic Plan* suggests creating cooperative partnerships between the Butte Creek Watershed Conservancy and local, state, and federal agencies, and "developing a watershed management plan to manage road construction, timber harvest, and cattle grazing [which] can help prevent the introduction of too many fine sediments to the creek channel." (SPER, Chapt. 6: Stage 1 Action Plan-Sacramento River Basin, Revised Draft: February 1999, p. 79). Work done on this project will be easily integrated into the existing Butte Creek Watershed Management Strategy.

CDF is responsible for keeping Doe Mill Road open as a wildland fire access. With their present funding limitations they are able to perform only minimal upkeep of the road. CDF's current level of maintenance is not sufficient to prevent the overtopping of culverts during any large storm event. The dialogue between CDF and the CSU, Chico, Research Foundation project staff is developing through research conducted for the Wildland Fire Issues chapter in the Butte Creek watershed Existing Conditions Report. The continued development of this relationship through this collaborative process will expedite development of the Wildland Fire Management sections of the Butte Creek Watershed Management Strategy.

System-Wide Ecosystem Benefits

Current efforts on Butte Creek that meet CALFED objectives and that provide synergy for this project are directed towards reduction of entrainment of salmonid juveniles, increased instream flows, improvement of adult anadromous fish passage, and protection of riparian habitat. A cooperative effort to assess the amount of sediment contributed to Butte Creek by forest roads in the upper watershed is ongoing in three sub-basins of the upper Butte Creek watershed with funding from CALFED and cooperation between the CSU, Chico Research Foundation, USDA Forest Service and SPI – a major timberland owner in the upper watershed. Reducing unnatural levels of fine sediment delivered to streams within any tributary has benefits felt throughout the entire Sacramento-San Joaquin Delta watershed.

The agricultural community has undertaken substantial restoration activity to ease the passage of immigrating anadromous fish. Ducks Unlimited, Inc. and the California Waterfowl Association, with funding from the CVPIA *Anadromous Fish Restoration Program*, are working with local landowners along the lower reaches of Butte Creek to initiate a program to improve fish passage through the Butte Sink and Sutter Bypass. As a result of the M&T pump relocation on Big Chico Creek, a component of the project was an agreement to modify diversions from Butte Creek during certain key months to protect anadromous fish in Butte Creek. Under the agreement, up to 40 cfs of flow will be left in Butte Creek from October 1 through June 30 of each year. During 1994, the first fish screen on a Butte Creek diversion was installed at the Parrott-Phelan Diversion. Following installation of the fish screen, a new and improved fish ladder was constructed. During 1997, an inverted siphon was constructed under Butte Creek to convey flows delivered from the Feather River to the Western Canal Water District, initiating the removal of four additional agricultural structures. Three additional diversion dams (Durham Mutual, Adams, and Gorrill) along the valley reach of Butte Creek have received new fish screens and fish ladders in 1998.

All of these collaborative planning and implementation projects are geared towards successfully moving CALFED species of concern through the system. The resolution of several fish-passage problems in the valley reaches of Butte Creek, combined with high spring flows in 1998, resulted record numbers of

spring-run chinook salmon reaching spawning grounds in the foothills above the City of Chico. Concerns were raised regarding the availability of suitable spawning habitat for over 20,000 salmon. Projects intended to reduce sedimentation in the upper watershed are meant to provide these species with the best possible migrating, holding, and spawning habitat once they have circumvented the ocean, the Delta, the Sacramento River, and the lower sections of Butte Creek.

Compatibility with Non-Ecosystem Objectives

This project will have no effects on levee system integrity or water supply reliability. It will improve water quality by reducing a known source of fine sediments. Public involvement in this project will provide a forum for the education of stakeholders on the linkages between sediment and fish habitat. Hopefully this will help to develop a stronger sense of stewardship for these areas. The challenges of forging a partnership between local homeowners, Butte Creek Watershed Conservancy, CDF, BLM, the USDA Forest Service, and CSU, Chico will serve as a model of possible approaches to long-term road management issues on complex ownerships within watersheds throughout the CALFED study area.

Third party benefits include improved access for local residents, improved water quality, and improved fire protection response times within the upper watershed.

Technical Feasibility and Timing

The alternative to this proposal is to continue the minimal maintenance that the road currently receives. Judging by the current condition of road, this alternative seems unlikely to improve the condition of spawning and holding habitats downstream. The necessary environmental documentation and permitting will be identified as part of Phase III of this project. None of the monitoring equipment will be placed in fish-bearing streams, and Fish and Game personnel will be consulted before any monitoring work begins. It is anticipated that no environmental documentation will be necessary to proceed with any of the Phases of this proposal.

Monitoring and Data Collection Methodology

It is hypothesized that making changes in the configuration of the road and its associated drainage structures will reduce the amounts of fine sediments delivered from the road surface and its adjacent hillslopes to the hydrologic network. Possible changes in road-configuration include: 1) Converting the road from an in-sloped road-surface with ditch-relief culverts to an out-sloping, free-draining road where feasible, 2) increasing the frequency of ditch-relief culverts on in-sloped road segments, and 3) upgrading the size of existing stream-crossing structures.

The effectiveness that the drainage upgrades developed by this proposal have in reducing sediment delivery will be evaluated using a variety of methods which include: 1) Photo sequences will be taken of all upgrade sites during each monitoring visit, 2) periodic quantification of sediment accumulation in depositional areas below culvert outfalls, and 3) annual reassessment of erosional features on the road surface area before spring maintenance activities occur on the road right-of-way. Monitoring will begin as soon as contracts are finalized, and ongoing monitoring and maintenance be concurrent and funded through watershed stewardship grants.

Biological/Ecological Objectives

The *"degradation of spawning and rearing habitat because of excessive loads of fine sediments..."* is

identified as being one of the "factors most influencing the ecological health of tributaries in the Sacramento River Basin". (SPER, p. 63). As this proposal aims to reduce the amount of sediment delivered from the road and its adjacent hillslopes to the creek, monitoring will include sediment transport studies in the ephemeral gullies which receive the outflow from road-drainage culverts. All sediment transport corridors below the elevation of the roadway will be mapped and evaluated before construction begins, and the amount of fine sediments trapped in major depositional areas will be quantified. This data will be entered into a GIS database, and bi-annual appraisals of these areas will be used to quantify changes in the amounts of fine sediments delivered from the road drainage network after construction has been completed.

Monitoring Parameters and Data Collection Approach

Each task listed in the *Proposed Scope of Work* section will be monitored to ensure its timely implementation and completion. Monitoring will continue for the 3 year life of this grant. Monitoring plots and transects will be permanently marked to facilitate future (post-project) monitoring when future funding becomes available.

Data Evaluation Approach

Table 2. Monitoring and Data Collection Information

1) Biological /Ecological Objectives			
Hypothesis/Question to be Evaluated	Monitoring Parameter(s) and Data Collection Approach	Data Evaluation Approach	Comments/Data Priority
Does the road system adversely affect hillslope hydrology?	Compile existing GIS data, Digitize information.	Compile data into GIS layers, conduct landscape analysis.	For use in report on baseline conditions
Are there relationships between road-drainage design and amount of delivered sediment?	Ground surveys, GPS and aerial photo interpretation, mapping of existing and potential drainage structures	Determine volume of erosional features along road right-of-way.	For use in report on baseline conditions and drainage site selection.
How will drainage improvements affect levels of fine sediment delivered to downslope deposition areas?	Ground surveys, cross-section compilation, GPS mapping, and aerial photo interpretation.	Survey cross-sections in depositional areas, install and monitor sediment catch-boxes.	For use in report on baseline conditions and comparative assessments post-construction.
How effective have the drainage improvements been in reducing road surface erosion?	Annual assessment of the road surface post-construction.	Determine volume of erosional features along road right-of-way.	Ongoing post construction, monitored yearly.
How effective have the fixes been in reducing sediment delivery?	Continued monitoring of sediment catch-boxes and depositional areas.	Compare pre-construction data with post-construction amounts	Ongoing post construction, monitored twice yearly

Local Involvement

This is a collaborative and coordinated project with as many of the affected and interested parties as we have been able to reach at this point. A meeting conducted on April 12th between representatives of the Butte County Board of Supervisors, Department of Public Works, Office of Emergency Services, Development Services, Planning Department, Water Board, CDF/Butte County Fire Department, USDA Lassen National Forest, Butte Creek Watershed Conservancy, and the CSU, Chico, Research Foundation,

yielded verbal agreements of support from all parties present.

Additional public outreach is planned in Phase I, Task 2 of the project. The Butte Creek Watershed Conservancy, County of Butte, CSU, Chico, CDF, USDA Forest Service, USDOJ Bureau of Land Management, and property owners along Doe Mill Road have all expressed an interest in participating in the process of developing a road management plan.

The landowners along Doe Mill Road are organized into an unofficial group – the Doe Mill Road Property Owners Association, and several members have added their addresses to a mailing list of interested parties.

Costs and Schedule to Implement Proposed Project

Table 3. Budget Costs

Project Phase and Task	Direct Labor Hours	Direct Salaries and Benefits	Service Contracts	Materials and Acquisition Contracts	Miscellaneous and Other Direct Costs	Overhead Labor (general, admin and fee)	Total Costs
Task I	780 hours	13,944	0	0	2,900	4,586	21,430
Task II	1600 hours	30,940	15,000	0	5,200	9,996	61,136
Task III	850 hours	15,825	45,000	0	2,700	5,166	68,691
Project Management Task	1125 hours	33,693	0	5000	8,800	10,726	58,219
TOTALS	4355 hours	94,402	60,000	5000	19,600	30,474	209,476

Table 4. Quarterly Budget FY 1999

Task	Quarterly Budget Oct. – Dec. 1999	Quarterly Budget Jan. – Mar. 2000	Quarterly Budget Apr. – June 2000	Quarterly Budget July – Sept. 2000	Total Budget FY 1999
Task I	10,715.20	10,715.2	0	0	21,430.40
Task II	0	15,284	15,284	15,284	45,852
Task III	0	0	0	0	0
Project Management Task	4851.58	4851.58	4851.58	4851.58	19406.32
TOTALS	15,566.78	30,850.78	20,135.58	20,135.58	86,688.72

Table 4. cont. Quarterly Budget FY 2000

Task	Quarterly Budget Oct. – Dec. 2000	Quarterly Budget Jan. – Mar. 2001	Quarterly Budget Apr. – June 2001	Quarterly Budget July – Sept. 2001	Total Budget FY 2000
Task I	0	0	0	0	0
Task II	15,284	0	0	0	15,284
Task III	0	0	0	0	0
Project Management Task	4851.58	4851.58	4851.58	4851.58	19406.32
Totals	20,135.58	4851.58	4851.58	4851.58	34,690.32

Table 4. cont. Quarterly Budget FY 2002

Task	Quarterly Budget Oct. – Dec. 2001	Quarterly Budget Jan. – Mar. 2002	Quarterly Budget Apr. – June 2002	Quarterly Budget July – Sept. 2002	Total Budget FY 2001
Task I					
Task II					
Task III					
Project Management Task	4851.58	4851.58	4851.58	4851.58	19406.32

Schedule and Milestones

Phase I – Public outreach and the development of a road maintenance partnership.

Scheduled Timeframe: October 1999 – March 2000

Task 1 –Design monitoring plan. Acquire baseline information on existing sediment transport regimes.

Task 2 –Compile existing geographic information, build GIS base maps.

Task 3 –Meeting minutes and road history information, Memorandum of Understanding.

Phase II – Landscape and site assessments, data analysis and development of a restoration plan.

Scheduled Timeframe: March 2000 – March 2001

Task 1 –Annotated GIS database of site attributes, stream crossings, and landscape features.

Task 2 –Identification of major sediment-delivery sites. Preliminary report and maps on results of landscape analysis. Summary of baseline environmental conditions.

Task 3 –Maps of major sediment deposition sites.

Task 4 –Peer-reviewed final report on results of landscape analysis and draft road management plan.

Phase III – Engineering and design of project implementation phase.

Scheduled Timeframe: December 2000 – October 2002

Task 1 –Maps of proposed drainage structures.

Task 2 –Cost estimates for implementation, grant proposals.

Task 3 –Environmental documentation.

Task 4 – Ongoing monitoring

Managerial Phase

Scheduled Timeframe: October 1999 – October 2002

Tasks – Quarterly Reports, Final Report, and successful completion of project.

Cost Sharing

While the cost of the initial assessment work is being requested from CALFED, other monies may be sought for the actual construction work and associated long-term monitoring planned out in this proposal. An award of State monies for the assessment work would enable the grantee to leverage federal matching funds for the next phase of work.

Applicant Qualifications

CALIFORNIA STATE UNIVERSITY, CHICO **Statement of Capabilities for Watershed Research and Planning**

The protection and enhancement of local creeks and watersheds by local community groups is a high priority at California State University, Chico. As a part of its community service mission, it is the policy of the University Research Foundation to organize teams for special projects and to provide the kinds of services described below.

Faculty: The primary mission of our faculty is teaching our own students. However, with funds generated from grants and contracts, our faculty often undertakes research, planning, and other community-based projects. Faculty can also be of service by supervising interns and conducting class projects that relate to the mission of local watershed protection groups.

Project Administration: The Research Foundation, as part of its regular operation, facilitates government and Foundation funding opportunities, makes contact with those organizations and provides assistance in grant proposal writing. Foundation personnel then administer the grant funds, provide auditing, and bookkeeping functions, and insure compliance with all government regulations and procedures.

Project Oversight: The Butte Creek Watershed Conservancy is a non-profit, landowner organization that was formed in September 1995 to encourage watershed-wide cooperation and communication between residents, landowners, water users, recreational users, and the local, state, and federal agencies working in the Butte Creek watershed.

Project Personnel:

Director:

Dr. Donald Holtgrieve, Professor of Geography and Planning, CSU, Chico. He teaches courses in water resources and environmental planning. Dr. Holtgrieve has been the recipient of many grants and awards, with a particular focus on the environment, specifically water quality and watershed management. He has extensive experience in directing grants awarded by both State and Federal Agencies, as well as official certification in Land Use, Transportation, and Wetlands Planning. Dr. Holtgrieve has supervised over 200 projects over the last 25 years. As Project Director, Dr. Holtgrieve will provide assurance that adequate resources are provided to the project, and will be the first line of communication between CALFED Category III and CSU Chico.

Project Manager:

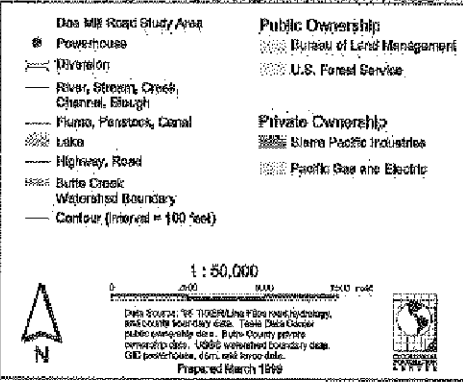
Ezekiel R. Lunder, Landscape Analyst, CSU, Chico Research Foundation.

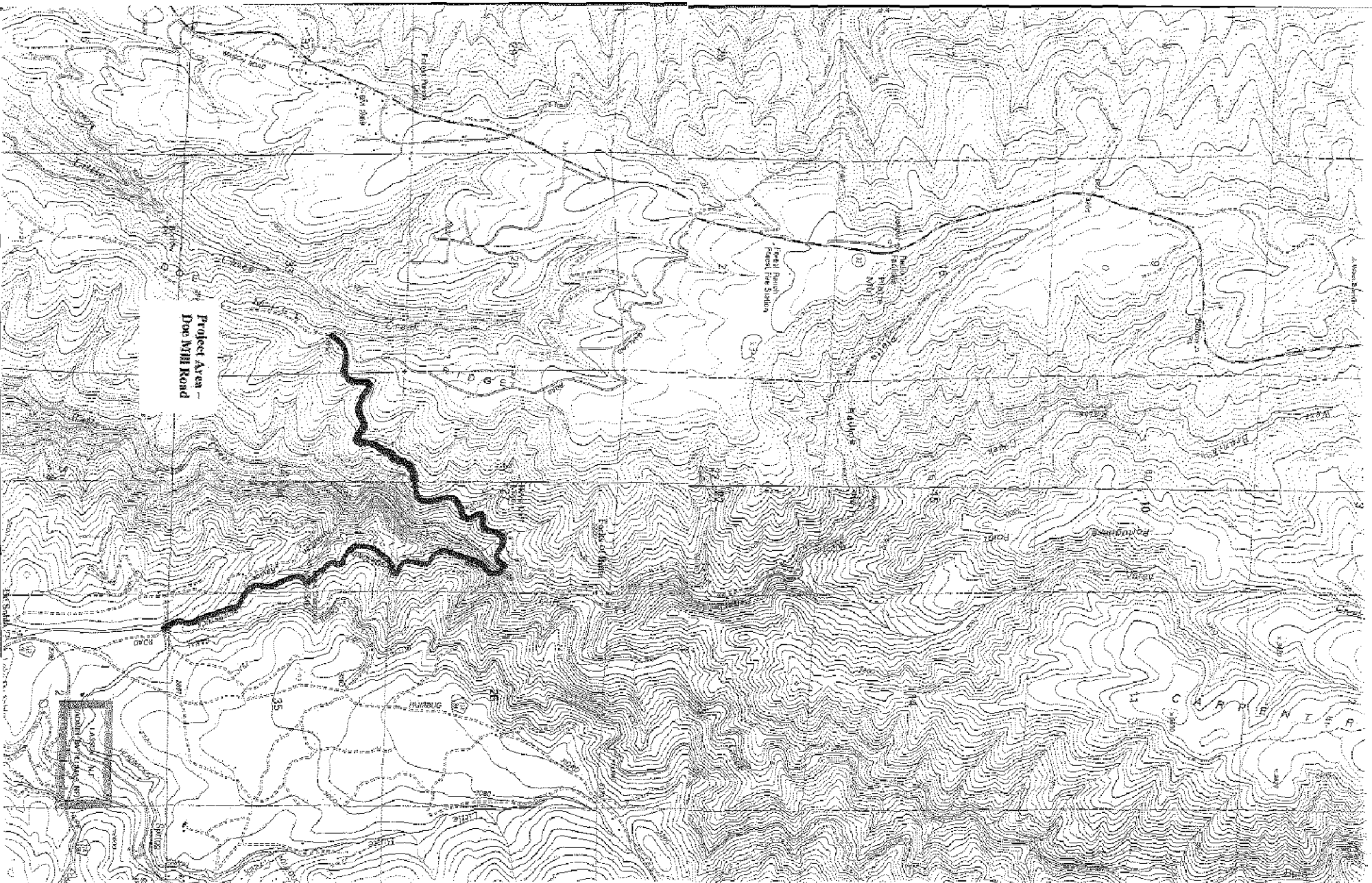
He is a technical geographer employed by the CSU, Chico Watershed Projects in the Department of Geography and Planning at CSU, Chico. His roles include 35mm aerial photography and interpretation, GIS project coordination – acting as contact between the Watershed Projects and the CSU, Chico Geographical Information Center, and teaching assistant – supervising interns working on the *Butte Creek Road Survey* project and other

field-mapping projects undertaken by the Watershed Projects. He is co-developer of the methodology being used in the collection and analysis of data for the *Butte Creek Road Survey*, and has authored chapters describing Wildland Fire Issues for the Butte Creek and Big Chico Creek Existing Conditions Report Projects.

Compliance with Standard Terms and Conditions

Doe Mill Road





Project Area -
Doe Mtn Road

1-017902

1-017902

CSU, Chico Research Foundation
California State University, Chico
Chico, California 95929-0870
(530) 898-4044; FAX: (530) 898-6804

April 12, 1999

Butte County Board of Supervisors
Beeler, Davis, Dolan, Houx and Josiassen
25 County Center Drive
Oroville, CA 95965

Kristin Cooper Carter, Coordinator
Environmental Resource Program
Office of Sponsored Programs
California State University, Chico
Chico, CA 95929-0870

Dear Supervisors Beeler, Davis, Dolan, Houx and Josiassen,

In compliance with the requirements of the CALFED Bay-Delta Program's Ecosystem Restoration Program and Strategic Plan 1999 Proposal Solicitation Package, we are formally notifying you of the submission of eight grant applications that reside either in part or fully within the boundaries of Butte County.

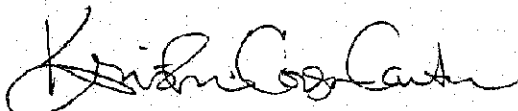
A list of the proposals submitted follows:

1. Upper Butte Creek Road Management Improvement Project
2. Butte Creek Watershed Education Program
3. Cherokee Watershed Sediment Transport and Water Quality Analysis
4. Butte Creek Howard Slough Riparian Restoration
5. Development of a Watershed Management Strategy for Little Chico Creek Watershed, Phase II and III.
6. Watershed Coordination for Big and Little Chico Creeks
7. Butte Creek Acquisition, Revegetation, and Restoration Assessment Project
8. Sacramento Valley: Eastside Small Streams

Executive summaries of all of these proposals will be forthcoming.

If you have any questions about these proposals, please feel free to call my office at (530) 898-5026.

Sincerely,



Kristin Cooper Carter
cc. Butte County Planning Department,
Thomas Parilo
Project Coordinators
Jeff Wright

CSU, Chico Research Foundation
California State University, Chico
Chico, California 95929-0870
(530) 898-4044, FAX: (530) 898-6804

April 12, 1999

Tom Parilo
Butte County Planning Department
7 County Center Drive
Oroville, CA 95965

Kristin Cooper Carter, Coordinator
Environmental Resource Program
Office of Sponsored Programs
California State University, Chico
Chico, CA 95929-0870

Dear Mr. Parilo

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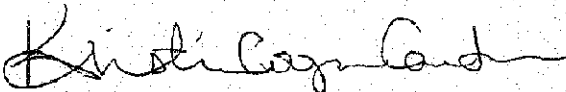
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Sincerely,



Kristin Cooper Carter
Butte County Board of Supervisors
Project Coordinators
Jeff Wright

APPLICATION FOR
FEDERAL ASSISTANCE

1. TYPE OF SUBMISSION <i>Application</i> <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction <i>Preapplication</i> <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		2. DATE SUBMITTED 04/16/99	Applicant Identifier
3. DATE RECEIVED BY STATE		State Applicant Identifier	
4. DATE RECEIVED BY FEDERAL AGENCY		Federal Identifier	

5. APPLICANT INFORMATION Legal Name: The CSU, Chico Research Foundation Address (give city, county, state, and zip code): Kendall Hall, Room 111 CSU, Chico Chico, CA 95929-0870		Organizational Unit: Name and telephone number of person to be contacted on matters involving this application (give area code): Technical: Dr. Donald Holtgrieve (530) 898-5870 Budgetary: Kristen Cooper-Carter (530) 898-5026 Contractual: Virginia Sturr (530) 898-5700
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6. EMPLOYER IDENTIFICATION NUMBER (EIN): <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 6 8 - 0 3 8 6 5 1 8 </div>	7. TYPE OF APPLICANT: (enter appropriate letter in box) 1 A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District H. Independent School Dist. I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) _____
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8. TYPE OF APPLICATION: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision If Revision, enter appropriate letter(s) in box(es): A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify): _____	9. NAME OF FEDERAL AGENCY: CalFed
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10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: <div style="border: 1px solid black; padding: 2px; display: inline-block;"> [] [] . [] [] [] [] </div> TITLE: _____	11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: Upper Butte Creek Road Management Improvement Project
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12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.): Butte County		
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13. PROPOSED PROJECT: Start Date: Sept 99 Ending Date: Sept 02	14. CONGRESSIONAL DISTRICTS OF: a. Applicant: 2 b. Project: 2
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15. ESTIMATED FUNDING: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">a. Federal</td> <td style="width:10%;">\$</td> <td style="width:70%; text-align: right;">209,477.00</td> </tr> <tr> <td>b. Applicant</td> <td>\$</td> <td style="text-align: right;">.00</td> </tr> <tr> <td>c. State</td> <td>\$</td> <td style="text-align: right;">.00</td> </tr> <tr> <td>d. Local</td> <td>\$</td> <td style="text-align: right;">.00</td> </tr> <tr> <td>e. Other</td> <td>\$</td> <td style="text-align: right;">.00</td> </tr> <tr> <td>f. Program Income</td> <td>\$</td> <td style="text-align: right;">.00</td> </tr> <tr> <td>g. TOTAL</td> <td>\$</td> <td style="text-align: right;">209,477.00</td> </tr> </table>	a. Federal	\$	209,477.00	b. Applicant	\$.00	c. State	\$.00	d. Local	\$.00	e. Other	\$.00	f. Program Income	\$.00	g. TOTAL	\$	209,477.00	16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE: _____ b. NO. <input checked="" type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW
a. Federal	\$	209,477.00																				
b. Applicant	\$.00																				
c. State	\$.00																				
d. Local	\$.00																				
e. Other	\$.00																				
f. Program Income	\$.00																				
g. TOTAL	\$	209,477.00																				

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? <input type="checkbox"/> Yes If "Yes," attach an explanation. <input type="checkbox"/> No		
---	--	--

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.		
a. Typed Name of Authorized Representative Jeff Wright	b. Title Director, Office of Sponsored Programs	c. Telephone number 530-898-5700
d. Signature of Authorized Representative 		e. Date Signed 4/14/99

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Phase 1		\$	\$	\$21,430	\$	\$21,430
2. Phase 2	N/A			\$61,136		\$61,136
3. Phase 3				\$68,691		\$68,691
4. Management				\$58,219		\$58,219
5. TOTALS		\$0	\$0	\$209,476	\$0	\$209,476

SECTION B - BUDGET CATEGORIES

6. OBJECT CLASS CATEGORIES	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1) Phase 1	(2) Phase 2	(3) Phase 3	(4) Management	
a. Personnel	\$10,920	\$23,800	\$12,300	\$25,539	\$72,559
b. Fringe Benefits	\$3,024	\$7,140	\$3,525	\$8,154	\$21,843
c. Travel	\$1,300	\$3,600	\$1,600	\$2,600	\$9,100
d. Equipment	\$0	\$0	\$0	\$5,000	\$5,000
e. Supplies	\$1,600	\$1,600	\$1,100	\$6,200	\$10,500
f. Contractual	\$0	\$15,000	\$45,000	\$0	\$60,000
g. Construction	\$0	\$0	\$0	\$0	\$0
h. Other	\$0	\$0	\$0	\$0	\$0
i. Total Direct Charges (sum of 6a-6h)	\$16,844	\$51,140	\$63,525	\$47,493	\$179,002
j. Indirect Charges	\$4,586.40	\$9,996	\$5,166	\$10,726.38	\$30,475
k. TOTALS (sum of 6i and 6j)	\$21,430	\$61,136	\$68,691	\$58,219	\$209,477
7. PROGRAM INCOME	\$0	\$0	\$0	\$0	\$0

1-017907

SECTION C - NON FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other sources	(e) TOTALS
8. Phase 1	\$0	\$0	\$0	\$0
9. Phase 2				\$0
10. Phase 3				\$0
11. Management				\$0
12. TOTALS (sum of lines 8 and 11)	\$0	\$0	\$0	\$0

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$94,688	\$17,566	\$32,851	\$22,136	\$22,136
14. NonFederal	\$0	\$0	\$0	\$0	\$0
15. TOTAL (sum of lines 13 and 14)	\$94,688	\$17,566	\$32,851	\$22,136	\$22,136

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16. Phase 1	\$21,430			
17. Phase 2		\$61,136		
18. Phase 3			\$68,691	
19. Management	\$14,555	\$14,555	\$14,555	\$14,555
20. TOTALS (sum of lines 16 - 19)	\$35,985	\$75,691	\$83,246	\$14,555

SECTION F - OTHER BUDGET INFORMATION			
21. Direct Charges:	\$179,001	22. Indirect Charges	\$72,559 Base (Salaries & Wages)
			\$30,475 Total Indirect 42% S&W
23. Remarks			

CSU, Chico Research Foundation
California State University, Chico
Chico, California 95929-0870
(530) 898-4044; FAX: (530) 898-6804

Indirect costs are those costs that cannot by their nature be specified on a project by project basis in the same way that line item direct costs can. Generally, indirect costs are those that support project activities, as compared to those that are directly related to specific project tasks. Universities establish an indirect cost rate with the Federal Government by following the appropriate provisions of OMB Circular A-21. This circular was officially modified and reissued on May 8, 1996, which, among other things, changed the term "indirect costs" to "Facilities and Administrative (F&A) Costs." The circular spells out two methods for determining such costs. We use the "Simplified Method" for institutions with less than \$10 million in awards annually from the Federal Government. Currently, we have two rates approved by our Health and Human Services Regional Office (Region IX) contacts: 42% of salaries and wages for on-campus projects and 18.5% of salaries and wages for off-campus projects. May Wong (415-556-1704) is our contact and can provide you with verification of our rate which her office approves after reviewing our financial statements.

Typically indirect costs are intended to generally cover costs such as facilities (including the space itself as well as utilities and janitorial services), general administration, insurance, "infrastructure" (for instance, availability of such resources as library holdings and other resources—e.g., access to electronic databases, communication links, computing backbone, and the like), grant and contract management services, cost of advancing funds for projects which pay in arrears and similar costs.

U.S. Department of the Interior

Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I, (Grantees Other Than Individuals) and Alternate II, (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12.)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters -
Primary Covered Transactions

☒ CHECK IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -
Lower Tier Covered Transactions

☐ CHECK IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

06-2016
March 1995

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK X IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about--
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Butte County

Check if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made

PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK ☐ IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT; SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK ☐ IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

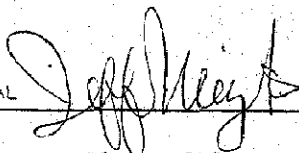
The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL



TYPED NAME AND TITLE

Jeff Wright, Director, Office of Sponsored Programs

DATE

4-12-99

ASSURANCES - NON-CONSTRUCTION PROGRAMS

ic reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

I, the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.

Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

- 12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
- 13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
- 14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
- 15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
- 16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
- 17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
- 18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL		TITLE
Jeff Wright		Director, Office of Sponsored Programs
APPLICANT ORGANIZATION		DATE SUBMITTED
The CSU, Chico Research Foundation		4-16-99